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Ganesh Basawapatna

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SCHWABE, WILLIAMSON & WYATT, P.C.
1420 FIFTH, SUITE 3010
SEATTLE, WA 98101

EXAMINER

SCHNURR, JOHN R

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/666,646	Applicant(s) BASAWAPATNA ET AL.	
	Examiner JOHN SCHNURR	Art Unit 2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-38, 40-54 and 56-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-38, 40-54 and 56-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/26/2009 has been entered.

DETAILED ACTION

1. Claims 30-38, 40-54 and 56-63 are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to claims 30-38, 40-54 and 56-63 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **30-38, 41-44, 46, 49-54 and 57** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US 5,729,281)**, herein Utsumi, in view of **Jeffery (US 2002/0007490)**.

Consider **claim 30**, Utsumi clearly teaches a method comprising:

Art Unit: 2421

receiving, at a local service module, one or more multiplexed channel signals from a headend; **(Fig. 2: Selective distribution station 10 receives a plurality of multiplexed video channels from center station 1, column 7 lines 26-29.)**

receiving a channel selection request for one of the plurality of video channels; **(column 7 line 62 to column 8 line 2)**

converting to a predetermined frequency, by one of a plurality of converters in the local service module, the one of the plurality of video channels corresponding to the channel selection request; **(Fig. 3: Modulating portion 13₁ converts the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

combining by the local service module, the converted one of the plurality of video channels with at least one other video channel from the one or more multiplexed channel signals into a multiplexed signal for transmission via the cabling. **(Fig. 3: Outputs from the modulating portions 13_x are multiplexed and transmitted via transmission line 20, column 8 lines 37-41.)**

However, Utsumi does not explicitly teach receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module.

In an analogous art, Jeffery, clearly teaches receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna **(Fig. 1: The system receives inputs from CATV input 30 and DSS input 40, [0035]-[0036].)**; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend **(Cross point matrix switcher 7 combines the selected video channels and provides the multiplexed stream to splice block 5, [0045]-[0047]);** and a plurality of room

Art Unit: 2421

interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module. **(Fig. 2: Channel change instructions from the interfaces are transmitted via wiring to the splice block 5, [0057].)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Utsumi by receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module, as taught by Jeffery, for the benefit of utilizing existing twisted-pair wiring to create an interactive video distribution system ([0008] Jeffery).

Consider **claim 31**, Utsumi combined with Jeffery, as in claim 30, clearly teaches converting, to a second predetermined frequency using another one of the plurality of converters, the at least one other video channel from the one or more multiplexed channel signals. **(Each modulating portion 13_x modulates the signal to a different frequency for each subscriber, column 8 lines 37-46 Utsumi.)**

Consider **claim 32**, Utsumi combined with Jeffery, as in claim 30, clearly teaches the video channels of the multiplexed signal are provided to and filtered by a video displaying apparatus coupled to an interface unit located at a customer location. **(The subscriber receiving device 31₁ receives the multiplexed signal and filters out the frequency, f_1 , for which it is assigned, column 8 lines 41-43 Utsumi.)**

Consider **claim 33**, Utsumi combined with Jeffery, as in claim 30, clearly teaches the channel selection request is received from a customer. **(column 7 line 62 to column 8 line 2 Utsumi)**

Consider **claim 34**, Utsumi combined with Jeffery, as in claim 30, clearly teaches the channel selection request identifies the customer. **(After receiving the channel change request from a subscriber the selected channel is modulated with a frequency assigned to that subscribed, therefore the**

Art Unit: 2421

channel change request must contain information identifying the subscriber, column 8 lines 20-46 Utsumi.)

Consider **claim 35**, Utsumi combined with Jeffery, as in claim 30, clearly teaches demultiplexing the one or more multiplexed channel signals at the local service module. **(Fig. 3 Demultiplexing portion 11, column 7 lines 39-42 Utsumi)**

Consider **claim 36**, Utsumi combined with Jeffery, as in claim 30, clearly teaches at least one of the one or more multiplexed channel signals includes one or more video channels received from any one or more, or a combination of, the following components of the neighborhood headend: a personal video recorder, a video on demand server, a personal computer, and a DOCSIS frequency converter. **([0049] Jeffery)**

Consider **claim 37**, Utsumi combined with Jeffery, as in claim 36, clearly teaches the channel selection request includes at least one command to control the video on demand server. **([0049] Jeffery)**

Consider **claim 38**, Utsumi combined with Jeffery, as in claim 30, clearly teaches the predetermined frequency is one of a plurality of predetermined frequencies; and the multiplexed signal is transmitted to a plurality of room interface units, each unit being associated with one of the plurality of predetermined frequencies. **(Each subscriber device 71 has a corresponding predetermined frequency. The multiplexed signal is transmitted to each subscriber device 71, wherein the device filters the frequency assigned to it, column 8 lines 34-51 Utsumi.)**

Consider **claim 41**, Utsumi combined with Jeffery, as in claim 30, clearly teaches at least one of the plurality of converters is a programmable converter. **(Fig. 3 modulating portions 13₁ to 13_N, column 7 lines 45-51 and column 8 lines 29-37 Utsumi)**

Consider **claim 42**, Utsumi combined with Jeffery, as in claim 30, clearly teaches at least one of the plurality of converters is a frequency converter. **(Modulating portions 13₁ to 13_N convert the frequency of the signal, column 8 lines 34-37 Utsumi.)**

Consider **claim 43**, Utsumi combined with Jeffery, as in claim 30, clearly teaches another local service module converts a video channel from the plurality of video channels to the predetermined frequency. **(Fig. 10: The system can employ multiple selective distribution stations, Utsumi.)**

Consider **claim 44**, Utsumi combined with Jeffery, as in claim 30, clearly teaches the local service module utilizes frequencies for the plurality of converters in the

Art Unit: 2421

local service module that are identical to frequencies utilized by a plurality of converters in the another local service module. **(The modulating portions 13₁ to 13_N in each of the selective distribution stations output frequencies in the range of f₁ to f_N, column 8 lines 11-15 Utsumi.)**

Consider **claim 46**, Utsumi clearly teaches a local service module, comprising:

a microprocessor adapted to receive a channel selection request for one of a plurality of video channels; **(Fig. 3: Receiving portion 15 receives channel change requests, column 7 line 62 to column 8 line 2)**

a plurality of converters adapted to convert to a predetermined frequency at least one of the plurality of video channels corresponding to the channel selection request; **(Fig. 3: Modulating portions 13₁ to 13_N convert the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

a combiner adapted to combine the converted one of the plurality of video channels with at least one other video channel into the multiplexed signal. **(Fig. 3: Outputs from the modulating portions 13_x are multiplexed and transmitted via transmission line 20, column 8 lines 37-41.)**

However, Utsumi does not explicitly teach receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module.

In an analogous art, Jeffery, clearly teaches receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna **(Fig. 1: The system receives inputs from CATV input 30 and DSS input 40, [0035]-[0036].)**; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend **(Cross point matrix switcher 7 combines the selected video channels and provides the**

Art Unit: 2421

multiplexed stream to splice block 5, [0045]-[0047]); and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module. (Fig. 2: Channel change instructions from the interfaces are transmitted via wiring to the splice block 5, [0057].)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Utsumi by receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module, as taught by Jeffery, for the benefit of utilizing existing twisted-pair wiring to create an interactive video distribution system ([0008] Jeffery).

Consider **claim 49**, Utsumi combined with Jeffery, as in claim 46, clearly teaches at least one of the plurality of converters is a programmable converter. **(Fig. 3 modulating portions 13₁ to 13_N, column 7 lines 45-51 and column 8 lines 29-37 Utsumi)**

Consider **claim 50**, Utsumi combined with Jeffery, as in claim 46, clearly teaches at least one of the plurality of converters is a frequency converter. **(Modulating portions 13₁ to 13_N convert the frequency of the signal, column 8 lines 34-37 Utsumi.)**

Consider **claim 51**, Utsumi combined with Jeffery, as in claim 46, clearly teaches the converted one of the plurality of video channels is provided to at least one bandpass filter. **(Receiving device 31 filters the intended signal, column 8 lines 41-43 Utsumi.)**

Consider **claim 52**, Utsumi combined with Jeffery, as in claim 46, clearly teaches a power divider adapted to divide the multiplexed channel signal into a plurality of identical multiplexed channel signals, one for each of the plurality of converters. **(Fig. 11: The multiplexed signal is divided into multiple multiplexed signals that are transmitted to each of the selective distribution stations Utsumi.)**

Art Unit: 2421

Consider **claim 53**, Utsumi clearly teaches a cable distribution system, comprising:

a plurality of local service modules to receive one or more multiplexed channel signals comprised of one or more video channels, **(Fig. 2: Selective distribution station 10 receives a plurality of multiplexed video channels from center station 1, column 7 lines 26-29.)**

a selected one or more of the video channels being provided to one or more of a plurality of converters in one of the local service modules for conversion into at least one predetermined frequency for combination with another video channel into a multiplexed signal; **(Fig. 3: Modulating portion 13₁ converts the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

a plurality of room interface units associated with the plurality of local service modules, each of the plurality of room interface units to receive the multiplexed signal and filtering one of the one or more video channels from the multiplexed signal for a video displaying apparatus. **(The subscriber receiving device 31₁ receives the multiplexed signal and filters out the frequency, f_1 , for which it is assigned, column 8 lines 41-43 Utsumi.)**

However, Utsumi does not explicitly teach receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module.

In an analogous art, Jeffery, clearly teaches receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna **(Fig. 1: The system receives inputs from CATV input 30 and DSS input 40, [0035]-[0036].)**; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend **(Cross point matrix switcher 7 combines the selected video channels and provides the**

Art Unit: 2421

multiplexed stream to splice block 5, [0045]-[0047]); and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module. (Fig. 2: Channel change instructions from the interfaces are transmitted via wiring to the splice block 5, [0057].)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Utsumi by receiving, at a neighborhood headend located in a neighborhood, a first input signal from a cable distribution center and a second input signal from a satellite cable antenna; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the first input signal from the cable distribution center and the second input signal from the satellite cable antenna; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, the room interface units transmitting the channel change request upstream via cabling coupled to the local service module, as taught by Jeffery, for the benefit of utilizing existing twisted-pair wiring to create an interactive video distribution system ([0008] Jeffery).

Consider **claim 54**, Utsumi combined with Jeffery, as in claim 53, clearly teaches the neighborhood headend is further configured to receive signals from a satellite delivery and transportation system. **([0036] Jeffery)**

Consider **claim 57**, Utsumi combined with Jeffery, as in claim 53, clearly teaches the neighborhood headend is remote from a cable distribution center headend. **([0035] Jeffery)**

5. Claim **40** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view **Jeffery (US 2002/0007490)**, as applied to claim 30 above, and further in view of **Kitamura et al. (U.S. 6,188,871)**, herein Kitamura.

Consider **claim 40**, Utsumi combined with Jeffery, as in claim 30, are relied upon as discussed above.

However, Utsumi combined with Jeffery, as in claim 30, do not explicitly teach at least one of the plurality of room interface units includes authorization information

Art Unit: 2421

that authorizes display of the one of the plurality of channels and the method further comprises: obtaining authorization from the at least one of the plurality of room interface units to convert the one of the plurality of video channels.

In an analogous art, Kitamura, teaches at least one of the plurality of room interface units includes authorization information that authorizes display of the one of the plurality of channels and the method further comprises: obtaining authorization from the at least one of the plurality of room interface units to convert the one of the plurality of video channels. **(Fig. 7 Steps 1-4, column 8 lines 34-63)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the headend of Utsumi in view of Jeffery to incorporate a block of personal video recorders, as taught by Kitamura, for the benefit of increasing operator revenues through offering restricted access to premium content for increased subscription fees.

6. Claim **45** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Jeffery (US 2002/0007490)**, as applied to claim 30 above, and further in view of **Chen et al. (US Patent 5,699,105)**, herein Chen, further in view of **Fellows, et al. ("DOCSIS Cable Modem Technology," IEEE Communications Magazine, March 2001, Vol. 39, Issue 3, pp. 202-209 (ISSN: 0163-6804))**, herein Fellows.

Consider **claim 45**, the teachings of Utsumi in view of Jeffery, are relied upon as discussed above relative to claim 30. Utsumi in view of Rakib fails to disclose the information passed back upstream to the service module also includes a DOCSIS return channel that is passed by the service module back to the headend and back to an internet service provider, as claimed.

However, Chen, in an analogous art, teaches passing information back upstream to a service module including data transmissions which are further passed to a headend for communication with an internet service provider for the benefit of providing access to internet based services over a cable network **(col. 5, lines 38-41)**.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the upstream

Art Unit: 2421

information of Utsumi in view of Jeffery to incorporate passing information upstream to the service module that is passed by the service module to the headend and back to an internet service provider, as taught by Chen, for the benefit of providing access to internet based services over a cable network in a cable distribution network.

Although Chen teaches transmitting upstream data via a service module to a headend for communication with an internet service provider, Utsumi in view of Jeffery, further in view of Chen fails to specifically disclose the upstream information including a DOCSIS return channel, as claimed.

However, Fellows, in an analogous art, teaches transmitting upstream information comprising a DOCSIS return channel (**page 204, 2nd col., paragraphs 2-3**). Utilizing a DOCSIS return channel in upstream data communications in a cable network provides the typical and well-known benefit of complying with an established data transmission standard and allows for the use of standardized data transceiver devices (e.g., customer cable modems and headend cable modem termination system equipment).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the upstream information of Utsumi in view of Jeffery further in view of Chen to incorporate upstream information including a DOCSIS return channel, as taught by Fellows, for the benefit of complying with an established data transmission standard and facilitating the use of standardized data transceiver devices in a cable distribution system.

7. Claims **47 and 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Jeffery (US 2002/0007490)**, as applied to claim 46 above, further in view of **Nikolich (US Patent Application Publication 2002/0073431)** and further in view of **Land (US Patent 6,848,116)**.

Consider **claim 47**, Utsumi in view of Jeffery fails to disclose the local service module further comprises: an input diplexer that separates a DOCSIS channel from the one or more multiplexed channel signals.

However, Nikolich, in an analogous art, teaches a television system including a DOCSIS channel (**Fig. 1B, Modulators 108-1 -108-N; paragraphs 27-28, describing frequency conversion of DOCSIS downstream data signals**).

Art Unit: 2421

Including DOCSIS frequency converters at a cable headend provides the typical and well-known benefit of transmitting downstream internet data to subscribers in compliance with an accepted and widely used data transmission standard.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Utsumi in view of Jeffery to include a DOCSIS communication channel, as taught by Nikolich, for the benefit of transmitting downstream internet data to subscribers in compliance with an accepted and widely utilized data transmission standard in a cable distribution system.

The combination of Utsumi, Jeffery and Nikolich fails to disclose an input diplexer that separates channels from the multiplexed signal.

In an analogous art, Land, which teaches a system for bi-directional communication in a cable system, clearly teaches an input diplexer that separates channels from the multiplexed signal. **(Fig. 9 Input diplexer 26, column 3 line 67 to column 4 line 6; column 4 lines 33-36)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Utsumi in view of Jeffery and Nikolich to include an input diplexer, as taught by Land, for the benefit of separating the input signal into separate frequency bands.

Consider **claim 48**, Utsumi in view of Jeffery, Nikolich and Land, as in claim 47, clearly teaches an output diplexer that separates a DOCSIS channel from the one or more multiplexed channel signals. **(Fig. 9 Output diplexer 19, column 3 line 67 to column 4 line 6; column 4 lines 33-36 Nikolich)**

8. Claim **56** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Jeffery (US 2002/0007490)**, as applied to claim 53 above, and further in view of **Kitamura et al. (U.S. Patent 6,188,871)**, herein Kitamura.

As for **claim 56**, the teachings of Utsumi in view of Jeffery are relied upon as discussed above. Utsumi in view of Jeffery fails to disclose an associated database in communication with the processor, the database storing customer viewing preferences.

Art Unit: 2421

However, Kitamura, in an analogous art, teaches a processor (**Fig. 3, CPU 904**) and database (**Fig. 3, Database 111**) in communication with a headend and service module, the processor controlling the operation of receiver/decoders and the database assisting the processor and storing customer viewing preferences (**col. 8, lines 4-9, col. 8, lines 34-51**) for the benefit of enabling a subscriber to receive a desired CATV program through a simple receiver (**see col. 1, line 65 - col. 2, line 7**).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of Utsumi in view of Jeffery to incorporate the processor and an associated database in communication with the headend and service module, and the database assisting the processor in this functionality and in storing customer viewing preferences, as taught by Kitamura, for the benefit of enabling a subscriber to receive a desired CATV program through a simple receiver in a cable distribution system.

9. Claim **58** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Jeffery (US 2002/0007490)** in view of **Rakib (US Patent Application Publication 2002/0019984)** further in view of **Land (US Patent 6,848,116)**.

Consider **claim 58**, Jeffery clearly teaches a neighborhood headend comprising:

receiver/decoder means for receiving a satellite dish signal from a satellite dish antenna and for decoding and outputting in response, a first signal; receiver/decoder means for receiving a cable television signal from a cable distribution center and for decoding and outputting in response, a second signal; (**Fig. 1: The system receives inputs from CATV input 30 and DSS input 40, [0035]-[0036].**)

combiner means for combining first, second and third signals and for outputting a combined signal; (**Cross point matrix switcher 7 combines the selected video channels and provides the multiplexed stream to splice block 5, [0045]-[0047]**)

outputting a multiplexed channel signal to a local service module co-located in a neighborhood with the neighborhood headend. (**[0050]**)

However, Jeffery does not explicitly teach video recorder means for receiving at least one of a satellite dish signal from the satellite antenna and a cable

Art Unit: 2421

television signal from the cable distribution center and for outputting in response, a selected third signal.

In an analogous art, Rakib, which discloses a system for a video headend, clearly teaches video recorder means for receiving at least one of a satellite dish signal and a cable television signal from the cable distribution center and for outputting in response, a selected second signal. **(Fig. 6 Hard disk array 289, [0096]-[0097])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Jeffery by using video recorder means for receiving at least one of a satellite dish signal and a cable television signal from the cable distribution center and for outputting in response, a selected second signal, as taught by Rakib, for the benefit of reduced consumer costs in the provision of TIVO like functions by utilizing hardware located at a headend in a cable distribution system.

However, Jeffery combined with Rakib does not explicitly teach diplexer means for receiving the combined signal and for outputting in response, a multiplexed channel signal to a local service module co-located in a neighborhood with the neighborhood headend.

In an analogous art, Land, which teaches a system for bi-directional communication in a cable system, clearly teaches diplexer means for receiving the combined signal and for outputting in response, a multiplexed channel signal to a local service module co-located in a neighborhood with the neighborhood headend. **(Fig. 9 Input diplexer 26, column 3 line 67 to column 4 line 6; column 4 lines 33-36)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jeffery combined with Rakib to include an input diplexer, as taught by Land, for the benefit of separating the input signal into separate frequency bands.

10. Claims **59 and 60** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jeffery (US 2002/0007490)** in view of **Rakib (US Patent Application Publication 2002/0019984)** further in view of **Land (US Patent 6,848,116)**, as applied to claim 58 above, further in view of **Nikolich (US Patent Application Publication 2002/0073431)**.

Art Unit: 2421

Consider **claim 59**, Jeffery combined with Rakib and Land clearly teaches a neighborhood headend.

However, Jeffery combined with Rakib and Land does not explicitly teach personal computer means for receiving an Internet over television signal, the personal computer means also for outputting in response, a third signal to be combined with the first and the second signal by the combiner means.

However, Nikolich, in an analogous art, teaches personal computer means for receiving an Internet over television signal, the personal computer means also for outputting in response, a third signal to be combined with the first and the second signal by the combiner means. **([0027]-[0028])**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jeffery combined with Rakib and Land to include personal computer means for receiving an Internet over television signal, the personal computer means also for outputting in response, a third signal to be combined with the first and the second signal by the combiner means, as taught by Nikolich, for the benefit of transmitting downstream internet data to subscribers in compliance with an accepted and widely utilized data transmission standard in a cable distribution system.

Consider **claim 60**, Jeffery combined with Rakib, Land and Nikolich clearly teaches frequency converter means for receiving an Internet connectivity channel and converting the Internet connectivity channel to a predetermined frequency for passage to the combiner means. **([0028] Nikolich)**

11. Claims **61 and 63** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jeffery (US 2002/0007490)** in view of **Rakib (US Patent Application Publication 2002/0019984)** further in view of **Land (US Patent 6,848,116)**, as applied to claim 58 above, further in view of **Hendricks et al. (US Patent 5,600,364)**, herein Hendricks.

Consider **claim 61**, Jeffery combined with Rakib and Land clearly teaches a neighborhood headend.

However, Jeffery combined with Rakib and Land does not explicitly teach receiver/decoder means comprises a block of separate integrated receiver/decoders (IRDs).

Art Unit: 2421

However, Hendricks, in an analogous art, teaches receiver/decoder means comprises a block of separate integrated receiver/decoders (IRDs). **(Fig. 6a IRDs 240, col. 21 lines 38-40)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jeffery combined with Rakib and Land to include receiver/decoder means comprising a block of separate integrated receiver/decoders (IRDs), as taught by Hendricks, for the benefit of controlling multiple video signals (col. 3 lines 10-12 Hendricks).

Consider **claim 63**, Jeffery combined with Rakib, Land and Hendricks clearly teaches the receiver/decoder means is further for receiving a satellite dish signal. **(col. 3 lines 53-59 Hendricks)**

12. Claim **62** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Jeffery (US 2002/0007490)** in view of **Rakib (US Patent Application Publication 2002/0019984)** further in view of **Land (US Patent 6,848,116)**, as applied to claim 58 above, further in view of **Chen et al. (US Patent 5,699,105)**.

Consider **claim 61**, Jeffery combined with Rakib and Land clearly teaches a neighborhood headend.

However, Jeffery combined with Rakib and Land does not explicitly teach video recorder means is further for receiving a signal from a broadcast television antenna.

However, Chen, in an analogous art, teaches the video recorder means is further for receiving a signal from a broadcast television antenna. **(col. 6 lines 1-4)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Jeffery combined with Rakib and Land by receiving a signal from a broadcast television antenna., as taught by Chen, for the benefit of increasing the available programming.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN SCHNURR whose telephone number is (571)270-1458. The examiner can normally be reached on M-F 9a-5p.

Art Unit: 2421

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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JRS

/Hunter B. Lonsberry/
Primary Examiner, Art Unit 2421